



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/875,403

06/06/2001

Srinivas V.R. Gutta

P08667US00

7747

22885

7590

01/07/2009

MCKEE, VOORHEES & SEASE, P.L.C.  
801 GRAND AVENUE  
SUITE 3200  
DES MOINES, IA 50309-2721

EXAMINER

RAMAN, USHA

ART UNIT

PAPER NUMBER

2424

MAIL DATE

DELIVERY MODE

01/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



***Response to Arguments***

1. Applicant's arguments filed September 25<sup>th</sup>, 2008 have been fully considered but they are not persuasive.

Applicant argues (see Remarks, page 8) that Vamparys does not disclose, "training of first and second classifier modules to relate to first and second program categories respectively, but rather simply states that....a particular filtering engine (classifier module) may be better adapted to one content category than to another content category. This is not the same as positively training particular classifier modules and positively directing identified program categories to the same". Examiner respectfully disagrees. Vamparys discloses coefficients for these recommenders "evolve dynamically" (see page 16 lines 12-14), wherein the coefficients also depend on the program category to adapt an engine better for that category type (page 16 lines 5-11, page 17 lines 10-15). Therefore over time, the coefficient of the filtering engines evolve dynamically (thereby learning) for the recommenders to make better recommendations, wherein such coefficient would be adjusted to make better recommendations of certain programming types (e.g. coefficient 714 would evolve over time to make better recommendations on movie and coefficient 712 would evolve over time to make better recommendations on sports). Therefore the different recommenders are "trained" to relate to a first program category and a second program category.

Applicant's arguments (see Remarks, page 9) stating that, "There is no disclosure in Vamparys of the provision of different ranking values being allocated to

the first and second recommendations and then choosing one of the recommendations based on the comparisons" have been noted. However examiner respectfully disagrees. For example, Vamparys discloses that each of the recommendation engines output their result (i.e. program recommendation list), wherein such results are aggregated. See page 15 line23- page 16 line 2. Additionally the recommendation result of each of the recommender engine comprises a ranking for the programs (see page 19 lines 13-15). While Vamparys is silent on the details of the final "aggregation", while Hendricks discloses the method of discarding weak recommendations, Hendricks is shows evidence to one of ordinary skill in the art select only the stronger recommendations over weaker ones when aggregating a list for presentation. Furthermore, it is noted that recommenders as taught by the above systems aim to provide programs that are most likely to appeal to the viewer, and therefore provide programs that are perceived by the recommenders to strongly correlate to viewer preferences. As such, it would be clear to one of ordinary skill in the art to pick the highest scoring/ranking recommendations thereby selecting the programs perceived to be most closely correlated to viewer characteristics.

For the reasons stated above, the rejection has been maintained.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation “means for identifying from the received first record *a first programming category*”, wherein claim further notes that the first classifier is trained with “*a first programming category*”. The claim recites generating a first recommendation using a first classifier and a second recommendation using a second classifier when *the first programming category* is not identified as one of a plurality of programming categories. Additionally it is noted that light of the disclosure, when a program comprises a first programming category and a classifier is trained with the first programming category, the recommendation is generated with the first classifier. However the claim recites that both a first and second recommendations are generating using first and second classifiers trained with first and second programming categories respectively even though the program comprises a first programming category. As such there appears to be ambiguity on which branch (from decision step on determining program category) is being executed due to the first program record comprising a first programming category.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 13, 15, 16, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vamparys (WO 01/15449) in view of Jacobi et al. (US Pat. 6,064,980) and Hendricks et al. (US Pat. 5,798,785)

With regards to claims 6, 13, 15, 16 and 19, Vamparys discloses a computer implemented method for generating a recommendation of a program (see page 5, lines 2-4), said method comprising the steps of:

Receiving a record corresponding to the program, the record including a program category indication (see page 7, lines 21-25, page 9, lines 8-11, 18-21);

Generating a first recommendation of a program by a first recommendation engine (i.e. first classifier module), and generating a second recommendation of a program by a second recommendation engine (i.e. a second classifier module), wherein the first classifier module trained with a first program category and the second classifier module trained with a second program category (see page 15, lines 22-25, page 16, lines 1-2, 5-11 “a filtering engine can be better adapted one content category than another content category”). Vamparys discloses the step including a matching one or more program characteristics information (including keywords, program title, ratings, category etc.) against viewer characteristics in order to generate recommendations. See page 17, line 25-page 19, line 1. Vamparys is silent on the step of generating the first and second recommendations when the record program category indication fails to indicate at least one of a plurality of programming categories.

Jacobi et al. presents a scenario in a recommendation system, wherein new categories of items become available over time, however is absent from the being categorized in the recommendation service. See column 3, lines 2-10. Examiner notes that, because Vamparys indexing a plurality of characteristics of a program in addition to categories (such as keywords), the first and second recommendation engines are capable of generating recommendations in the absence of an unidentified new category in the recommender system. See page 17, line 25- page 18, line 15. Vamparys further shows associating weights with the plurality of recommender engines (see figure 7, 712 and 714), however is silent on the step of selecting a higher of the two weighted (ranking) recommendation. Hendricks discloses the method of comparing weighted recommendations against a minimum weighted index, and eliminating recommendations that falls below the minimum weight. See Hendricks: column 32, lines 57-62.

It would have been obvious to modify the system of Vamparys by continuing to generate recommendation on new items comprising new categories that fail to be identified at the recommender engine by using other pre-existing program characteristics, such as keywords, when the program category indication fails to indicate at least one of a plurality of existing categories, upon generating a first and second recommendations that are ranked with weighted coefficients and further modifying the system in view of Hendricks by eliminating a first or second recommendation when it falls below the minimum weight and keeping the recommendation that is above the minimum weight, thereby selecting the

recommendation that has the higher ranking. The motivation is to enable recommendation of new programs based on viewer characteristics and other known program characteristics, such that programs cater more to viewer interests are presented to the user.

With further regards to claim 16 and 19, in accordance with the modified system, Vamparys discloses including category data as part of program record, the record therefore contains a program category indication, and when a new item of non-service category is present, the new item may not have any identifiable categories in the recommender system (see Jacobi: column 3, lines 2-10).

With regards to claim 22, the above modified system in selecting the highest ranking data, comprises the method of selecting between the first and second generated recommendations (see claim 6 above).

6. Claims 21, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vamparys (WO 01/15449) in view of Jacobi et al. (US Pat. 6,064,980) and Hendricks (US Pat. 5,798,785) et al. as applied to claims 15, 6, and 13, respectively above, and further in view of Applicant's Admitted prior art ("AAPA")

Claims 21, 25 and 26, recite the computer implemented method, wherein one of the first and second classifier modules is a concept learning based classifier and the other of the modules is a classifier for providing a probabilistic calculation. As discussed above, Vamparys in view of Jacobi and Hendricks anticipate each and every limitation of claims 6, 13 and 15, but fail to specifically recite the limitations of Claim 21. However, within the same field of endeavor, AAPA



discloses the exact limitations and admits them as prior art (see Disclosure, page 6, lines. 1-13 & 18-21). Accordingly, it would have been obvious to one having ordinary skill in this art at the time of Applicant's invention to combine the teachings of Hendricks and AAPA to provide a system, which incorporates well-known learning techniques.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Tue-Fri: 8am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The

Art Unit: 2424

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/  
Supervisory Patent Examiner, Art  
Unit 2424

/Usha Raman/